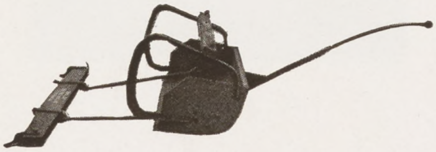
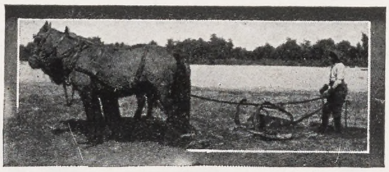
Scrapers



The Holt Manufacturing Company

Holt Scrapers



Care has been taken in compiling Bulletin S-54 covering our line of Scrapers, to set forth the advantages of the various patterns manufactured by us, in a concise and simple manner.

To the many satisfied users of Holt Scrapers, demonstrated adaptability and durable qualities are the best recommendation, but nevertheless, they as well as he who has never used our product will find in these pages interesting facts covering our process of manufacture, also information relative to the latest improvements on old, and description of new models.

"HOLT QUALITY" is embodied in each component part of our Scrapers, which fact, coupled with our unexcelled facilities for prompt shipment of both complete Scrapers or extra parts, cannot but recommend Holt Scrapers to those interested.

Bulletin S 54 **June 1, 1913**

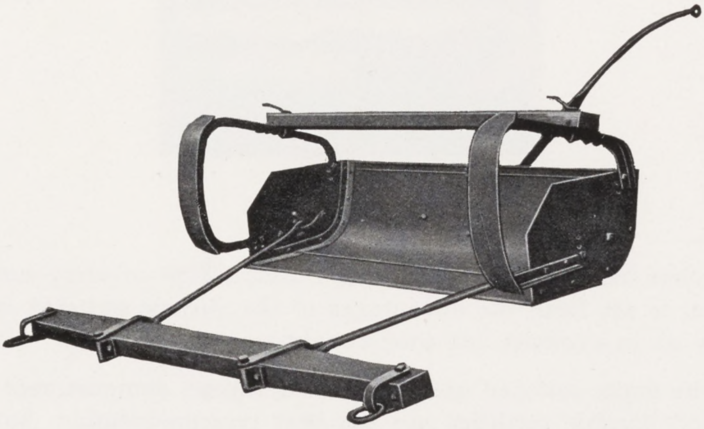
The Holt Manufacturing Company

Incorporated

Stockton, California, U. S. A.

San Francisco : : : Cal.
Los Angeles : : : Cal.
New York : : : : N. Y.
Spokane : : : : Wash.
Walla Walla : : : Wash.
Denver : : : : Colo.
Portland : : : : : Ore.
Peoria : : : : : Ill.
Calgary : : : : : Can.

Holt 1909 Fresno Scraper



Size	Cut	Weight
2 Horse	3 ft. 6 in.	233
3 Horse	4 feet	244
4 Horse	5 feet	300

Besides the regular HOLT 1909 FRESNO SCRAPER shown in the photograph above, we build Scrapers to meet special conditions or individual ideas. These Special Scrapers are made of the same good material and in the same careful manner as our regular models. Also, on order, we fit our regular models, with special blades, wear plates, draw rods, etc., to meet peculiar conditions. Therefore if our regular models do not exactly suit your requirements, write us, stating exactly what you desire, and we will be glad to submit quotations.

MATERIAL AND WORKMANSHIP.

The ever increasing popularity of the Holt 1909 Fresno Scraper is attributed to our earnest endeavor and constant effort to build a Scraper combining utmost strength, durability and Perfect Balance. With an equipment of specially designed machinery and the use of the highest grade materials, we have brought the construction of Holt 1909 Fresno Scrapers to a point of perfection, which leaves little to be desired.

Mechanical exactness, and high grade material, coupled with skilled labor in assembling insures a product with maximum wearing qualities, also permitting easy replacement of different parts should such be necessary.

The evolution of the various parts from the raw material to the finished Scraper is in itself interesting, and is the most satisfactory way of arriving at the true value of the implement.

BOWL.

Correct shape, smoothness and freedom from defects are most essential, and to produce our Bowls, we have designed a machine which rolls the three-sixteenths inch steel plates, from which 1909 Fresno Scraper Bowls are made, into perfect and uniform shape, without denting the surface or injuring the texture of the steel.

The Bowl Ends are also made of three-sixteenths inch steel, accurately cut to template. Great care is taken in punching the rivet holes, that they are exact size and properly placed. All rivets used are three-eighths inch and as they are driven from the outside and headed (not flattened) on the inside, and fit the holes exactly, they cannot work loose or become sheared from the play of the plates through which they pass.

BLADES.

The Blade is a most important part of the Scraper, and prospective purchasers will do well to look to the quality of material entering into, and the process of shaping and sharpening the blade.

Blades made by The Holt Manufacturing Company have earned a reputation for quality and durability second to none.

Our Blades are made from Special High Carbon Plow Steel, with HAMMER PLATED cutting edges. Hammer Plating is much more costly than rolling, planing or grinding, but owing to the fact that hammering increases the density of the steel, and produces an even temper throughout the entire texture, we have adopted this method, and thus produce Blades with the greatest uniformity of temper and maximum wearing qualities.

BOWL ANGLES AND ANGLE RUNNERS.

Special machinery is again employed in forming both the Bowl Angles and Angle Runners. These parts are rolled in pairs, left and right hand, which results in exact fit and mating, and in perfect balance.

REINFORCEMENT OF BOWL.

To eliminate buckling or breaking of the Bowl Back, the weak point in many scrapers, we reinforce our Bowls across the top on the inside with a light but strong Angle securely riveted in place by three-eighths inch rivets.

Tests have proven that the foregoing method of reinforcement will absolutely prevent springing or breaking under the most severe usage.

HANDLES.

Holt 1909 Fresno Scrapers have a Handle so shaped that the gathering or dumping of the load can be accomplished with a minimum amount of effort on the part of the operator.

The handles are made of mild steel with forged eyes and upset ends, with carefully and smoothly finished hand surface, they are securely bolted to the Bowl at a point that will give easy leverage, and braced by heavy Mild Steel braces.

SHOES.

High Carbon Plow Steel, exact in quality to that used in the construction of the Blade, is the only material used for 1909 Fresno Scraper Shoes. Many manufacturers use Mild Steel or in some cases Iron. The Shoes are securely bolted to the Angle Runners with countersunk head bolts.

The great wearing qualities of our Shoes are a leading feature of Holt Scraper construction.

GOOSE NECKS OR DRAW ROD HOLDERS.

Goose Necks or Draw Rod Holders used on 1909 Holt Fresno Scrapers are forged in one piece from three-fourths inch round steel, the ends being swaged down and threaded to fit a five-eighths inch nut. Accurate punching of the holes in the heads, through which the Goose Neck end passes, prevents any play or consequent cutting.

DRAW RODS.

Round steel of ample size with accurately forged eyes in each end. Holt Draw Rods DO NOT PULL APART or BREAK at the eyes.

CROSS BARS.

Only the best, clear, selected stock of extra heavy dimensions is used for Holt 1909 Fresno Scrapers.

Tail Nuts, which do not require the use of a wrench, are used to adjust the Cross Bar in its various positions.

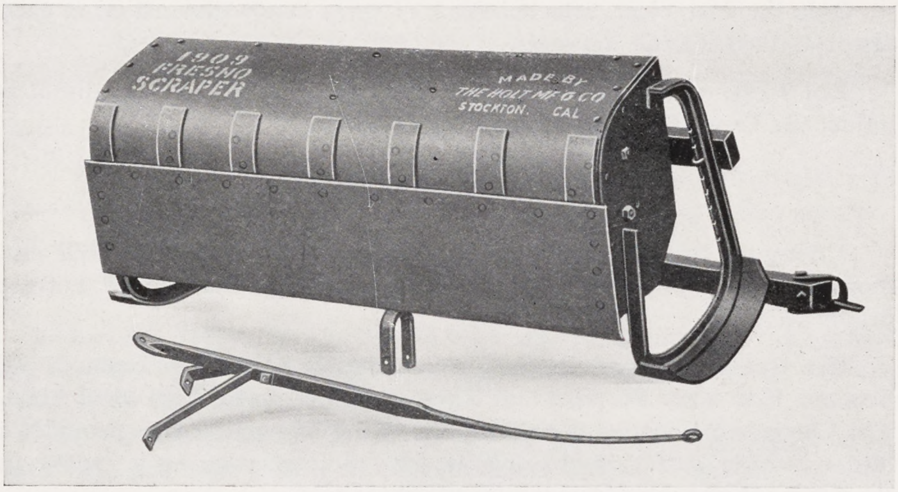
DOUBLETREES.

Among all Scraper users, the Holt Scraper Doubletree is well and most favorably known owing to its strength, durability and correct proportions.

The troublesome eye bolts generally used have been replaced by Swaged Flat Steel Clevises and Threaded Pins made from Mild Steel. The Clevis being shaped to fit the circle of the Draw Rod Eye, provides a larger bearing surface and prevents the eye from wearing a groove in the Clevis, thereby lengthening its life three-fold.

The end Clevises are made from Flat Steel swaged to give a large bearing surface at point of contact with the ring or hook on the lead bars, by which the Scraper is drawn.

1909 Holt Fresno Scraper With Special Wear Plates

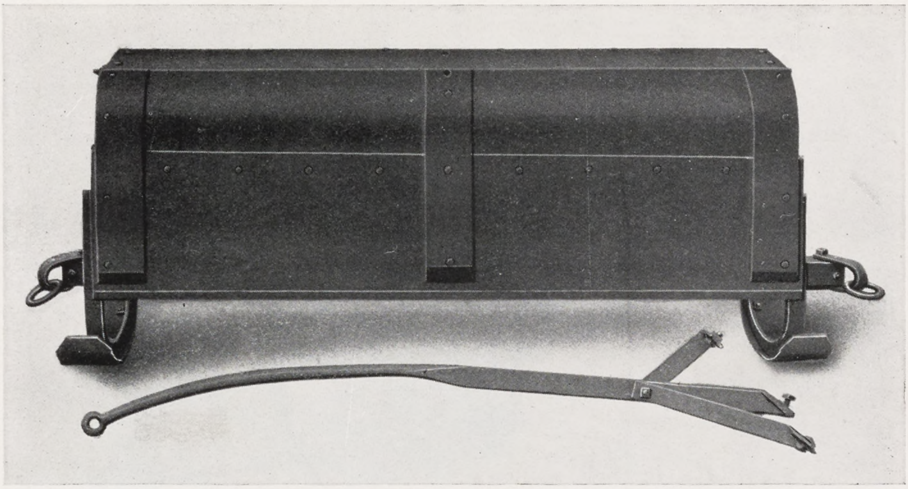


To meet the requirements of contractors and excavators having heavy work, we have placed on the market a Holt 1909 Fresno Scraper equipped with Wear Plates. These Wear Plates are formed from High Carbon Plow Steel, and shaped to fit the contour of the curved part of the Bowl; they are three inches in width, six inches in length and spaced six inches apart, and are securely riveted to the Bowl with Countersunk Rivets.

The use of Wear Plates will greatly prolong the life of the Bowl, and as all Fresno pattern Bowls are uniform shape, new Wear Plates can be ordered and easily put in place; in fact, Wear Plates can be attached to any Scraper we manufacture.

The addition of Wear Plates is the only change in the Holt 1909 Fresno Scraper, the Bowls being mechanically formed, the Blades HAMMER PLATED, and the same equipment of Draw Rods, Doubletrees and Swaged Clevises is used, making it the best Scraper now on the market.

Holt 1915 Railroad Fresno Scraper



In order to provide a Scraper especially adapted for the work, which Railroad Contractors are called upon to perform, we have designed the HOLT 1915 RAILROAD FRESNO SCRAPER.

Realizing that "No appliance is stronger than its weakest part," we have adopted a Wear Plate, which provides the utmost durability and so greatly reinforces the Bowl, that distortion or breaking is practically impossible.

The Wear Plates, as used on this Scraper, are made of High Carbon Steel, three-eighth by four inches. These Plates extend from the cutting edge of the Blade well up the back of the Bowl, being securely riveted in place.

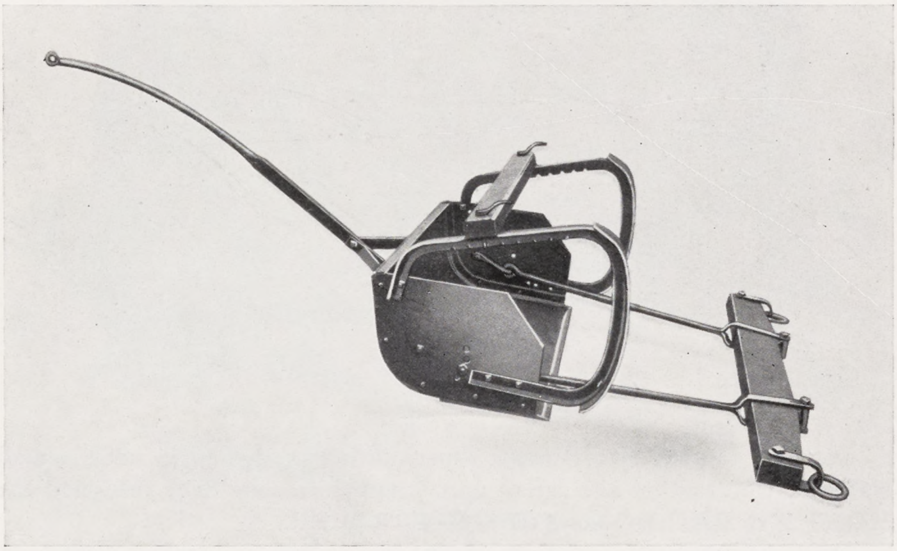
The length of the Wear Plate provides ample bearing surface for the Scraper Bowl, no matter how the load is placed, or what the angle of draft, a feature which will be appreciated when working over rocky or lumpy ground.

No part of the Scraper is called upon to withstand a greater strain than is the back of the Bowl where the handle is attached, as it is here that the great leverage necessary to gather the load is applied. Owing to the length of the Wear Plates, we are enabled to bolt the handle to the top or exposed surface of the middle plate, which owing to its thickness, greatly stiffens the Bowl at this point.

The same high quality of material and workmanship is used in this Scraper as in our other models.

The Holt 1915 Railroad Fresno Scraper is regularly built in two, three and four horse sizes.

Turlock Special Holt Fresno Scraper



The Turlock Special Holt Fresno Scraper was first built to meet the local requirements of the famous Turlock Irrigation District, and its success was so great in that locality, that it quickly became popular in other sections of the country.

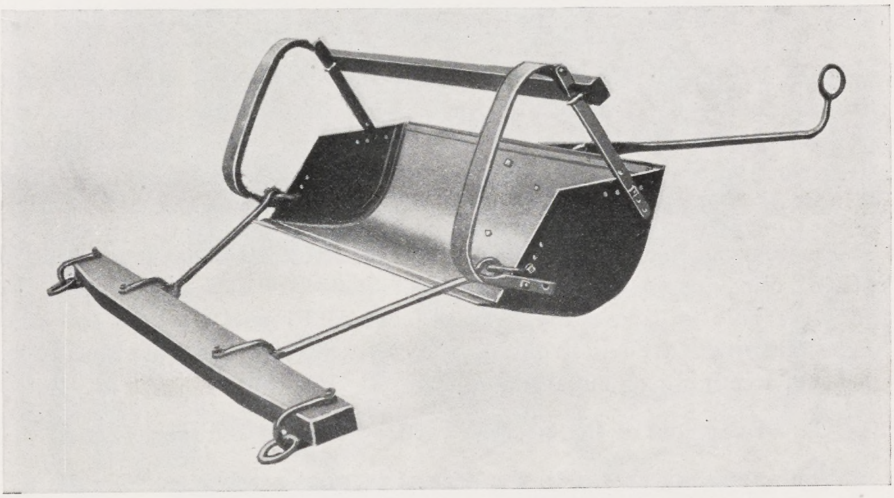
The principal difference between the Turlock Special and the regular 1909 Holt Fresno is in the Draw Rods. The Draw Rods of the Turlock Special have Clevises forged to and made an integral part of the Rod itself. The Doubletree fits between the branches of the Clevis and is held in place by a plate and threaded pin attached to the Doubletree. This plate and pin is similar to the one used on our regular 1909 Fresno model.

The advantage obtained by the Turlock Special Type of Draw Bar is that it permits of a solid connection between the Doubletree and the Scraper Bowl, a feature readily appreciated on work requiring constant turning.

The same material and careful construction enters into the Turlock Special as into the regular Holt 1909 Fresno, and they will be found efficient for all varieties of grading and excavating.

Turlock Specials are manufactured in two, three and hour horse sizes.

Holt Stockton Improved Scraper



Size	Cut	Weight
2 Horse	3 ft. 6 in.	235
4 Horse	5 feet	311

In order to meet the requirements of varying conditions of grading, we are producing a Scraper, which although different in design from the Fresno model, embodies the same careful construction and quality of material.

The shape of the Bowl and the method of attaching the Draw Rods, combined with the upward pull of the Doubletrees, tilts the Bowl backward and throws the weight of the load to the rounded part, which owing to its shape and the use of the heavy Wear Plates, results in reducing the bearing surface and consequent friction, and lessens the wear on the cutting edge of the Blade, also enabling the Scraper to easily pass over obstructions. The perfect balance thus obtained overcomes the tendency to spill the load, a feature that will be appreciated where loose sand or gravel is to be handled and long hauls over uneven ground are necessary.

Another feature is the narrow HAMMER PLATED BLADE, which is exceedingly tough and durable, and can be cheaply replaced when worn out.

By our method of hinging the Runners, 27 adjustments are possible, enabling the operator to distribute the load evenly from one to twelve inches deep, or dump it in a compact heap.

APPROXIMATE COST OF MOVING EARTH WITH 4-HORSE FRESNO SCRAPERS.

With Fresno Scrapers, as with all other excavating machinery, the cost of moving earth naturally varies according to the conditions encountered. Experience and constant observation have, however, given a rule for figuring the cost of moving earth with Fresno Scrapers, which may be said to be fairly accurate on ordinary work.

Considering the daily wage of a driver at $2.00 a day, and that of each of four horses at $1.00, a total of $6.00 per day per scraper, the following rule will give the average cost of Fresno work in soil that heaps and drifts well in front of a scraper. This rule does not cover plowing, trimming or supervision.

"To a fixed cost of 4c per cubic yard, add 2c per 100 feet of lead."

When applying this rule, the cost of moving earth is as follows:

"Lead" in Feet	Cents Per Cubic Yard	Cubic Yards Per Fresno Per Day
50	5	120
100	6	100
150	7	87
200	8	75
250	9	67
300	10	60
350	11	55
400	12	50

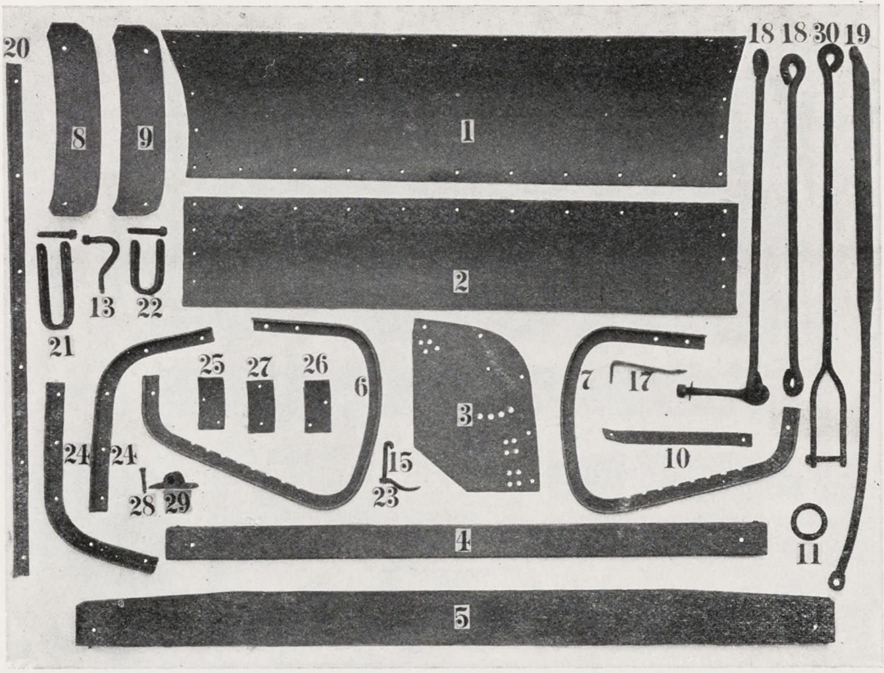
If the soil is not of a kind that heaps up and drifts well in front of a scraper, the average load in cubic feet per trip will be less. In this case, the rule becomes—

"To a fixed cost of 4c per cubic yard, add 3c per 100 feet of lead."

Based on this rule, the cost of moving earth is as follows:

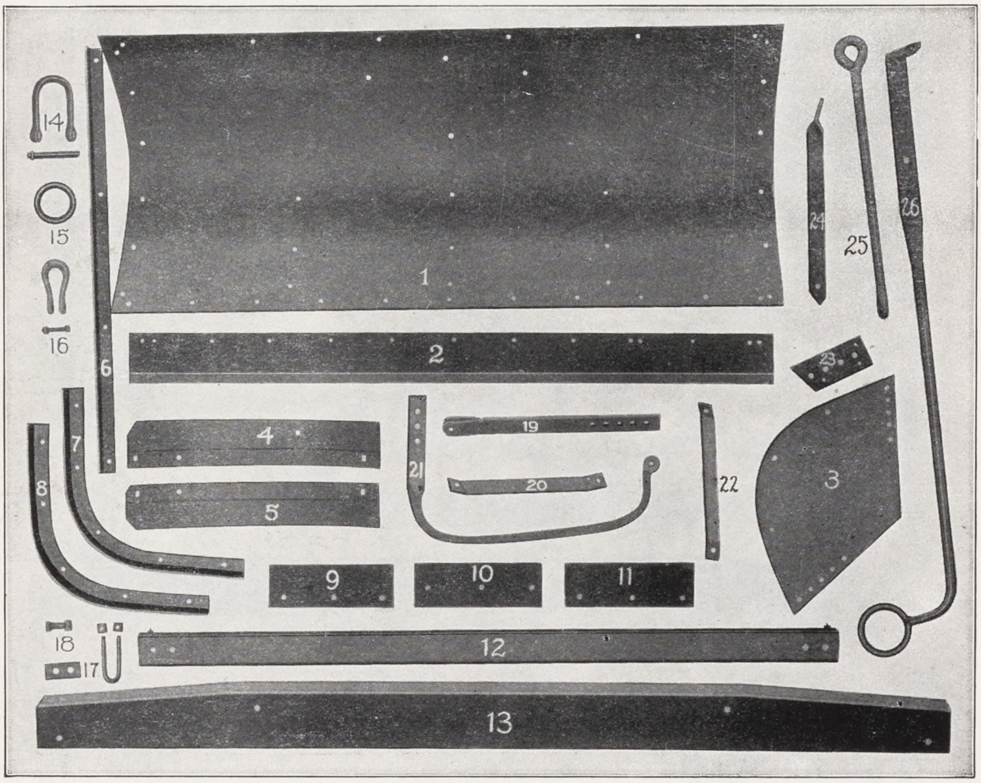
"Lead" in Feet	Cents Per Cubic Yard	Cubic Yards Per Fresno Per Day
50	5½	109
100	7	86
150	8½	70
200	10	60
350	11½	52
300	13	46
400	16	37
500	19	31
600	22	28

Holt Fresno Scraper Extras



No.	Name of Part	2 & 3 Horse	4 Horse
1	Bowl	$4.50	$5.00
2	Blade ¼x12 (Standard)	4.00	4.40
2F	Blade 5/16x12 (Special)	5.00	5.75
2G	Blade 5/16x13 (Special)	5.50	6.25
2H	Blade 5/16x14 (Special)	6.00	6.75
2J	Blade ⅜x12 (Special)	6.00	7.00
2K	Blade ⅜x14 (Special)	7.00	8.00
3	Head or End	1.25	1.25
4	Wood Cross Bar	.35	.35
5	Wood Doubletree	1.00	1.00
6	Angle Runner (Left Hand)	2.00	2.00
7	Angle Runner (Right Hand)	2.00	2.00
8	Runner Shoe (Right Hand)	.70	.70
9	Runner Shoe (Left Hand)	.70	.70
10	Handle Brace (Long)	.25	.25
11	Doubletree Ring	.20	.20
13	Rod Holder	.50	.50
15	Hook Bolt and Tail Nut	.30	.30
17	Handle Brace (Short)	.25	.25
18	Draw Rod 1909 Model (No Eye Bolt)	1.00	1.25
18	Draw Rod Old Model (With Eye Bolt)	1.25	1.25
19	Handle	2.00	2.00
20	Back Angle	.75	.75
21	Clevis and Threaded Pin for Draw Rod	.50	.50
22	Clevis and Threaded Pin for Doubletrees	.50	.50
23	Tail Nut (Without Hook Bolt)	.15	.15
24	Bowl Angle (Left Hand)	1.00	1.00
24	Bowl Angle (Right Hand)	1.00	1.00
25	Bowl Wear Plate Special (Left Hand)	.30	.30
26	Bowl Wear Plate Special (Right Hand)	.30	.30
27	Bowl Wear Plate Special (Intermediate)	.30	.30
28	Lag Bolt for Clevis Block	.05	.05
29	Clevis Block	.25	.25
30	Draw Rod for Turlock Special Scraper	1.50	1.50

Stockton Improved Scraper Extras



No.	Name of Part	2 Horse	3 Horse
1	Bowl	$5.00	$9.00
2	Blade	1.10	1.50
3	Head or End (Including No. 23)	1.50	1.50
4	Runner Shoe (Right Hand)	.65	.65
5	Runner Shoe (Left Hand)	.65	.65
6	Back Angle	.75	.75
7	Bowl Angle (Right Hand)	1.00	1.00
8	Bowl Angle (Left Hand	1.00	1.00
9	Bowl Wear Plate (Left Hand)	.30	.30
10	Bowl Wear Plate (Intermediate)	.30	.30
11	Bowl Wear Plate (Right Hand)	.30	.30
12	Wood Cross Bar	.35	.35
13	Wood Doubletree	1.00	1.00
14	Clevis for Doubletree	.35	.35
15	Doubletree Ring	.20	.20
16	Clevis for Draw Rod	.30	.30
17	Cross Bar Clip	.25	.25
18	Cross Bar Clip	.25	.25
19	Runner Fork	1.50	1.50
20	Handle Brace (Short)	.25	.25
21	Bent Runner (Connect with Fork)	2.00	2.00
22	Handle Brace (Short, same as No. 20)	.25	.25
23	Re-inforcing Plate for Draw Bar Clevis No. 16	.50	.50
24	Handle Brace (Long)	.25	.25
25	Draw Rod	.75	1.00
26	Handle	2.00	2.00

Trusting that it may be our pleasure to receive your orders for our regular line of Scrapers, or for Scrapers to meet special requirements, and assuring you that all inquiries relative to our various products will have our prompt and careful attention, we remain,

Very truly yours,

THE HOLT MANUFACTURING COMPANY.

THE HOLT PRESS